

**REMARKS**

Claims 1, 6-10, and 79-83 are pending in the application. Claims 2-5 and 11-78 have been canceled, claim 1 has been amended, and claim 83 has been added. Support for the amendments to claim 1 can be found in the specification, *e.g.* on page 4, lines 19-20. Support for new claim 83 can be found in the claims 79-82 as originally filed and in the specification, *e.g.* on page 4, lines 19-20, and from page 23, line 23 to page 25, line 13. No new matter has been added.

*Claim Objections*

The Examiner has objected to claim 1 because “*Cerevesiae*” is misspelled and claim 78 for having an undefined abbreviation. Claim 1 has been amended to obviate these objections. Claim 78 has been canceled, rendering this objection moot.

*Claims rejections*

Rejections under 35 U.S.C. § 112

Written Description

The Examiner has maintained the rejection of claims 1, 6-10, and 73-82 under 35 U.S.C. § 112, first paragraph for lack of written description. Applicants traverse for the reasons discussed below.

Without acceding to the propriety of the Examiner's position, and in order to expedite prosecution, Applicants have amended claim 1 to specify that the genetic alteration in the yeast strain is a deletion mutation. Applicants submit that they had possession of the claimed invention at the time the application was filed, as the deletion mutants of *Saccharomyces cerevisiae* and *Schizosaccharomyces pombe* were known to skilled artisans at the time of filing. Since these mutants were known, applicants disclosed relevant identifying characteristics to establish possession of the invention, in accordance with MPEP 2163(ii).

Additionally, the specification contains sufficient description of a representative number of species, since the specification discloses that an output array of the present invention can result from the mating of 8 different strains of yeast carrying a genetic alteration linked to a dominant drug resistant marker with an array of close to 5,000 deletion strains from *Saccharomyces cerevisiae*. Accordingly, applicants submit that the application as originally filed both discloses a representative number of species and discloses relevant identifying characteristics to establish that applicants were in possession of the claimed invention at the time the application was filed. Therefore, Applicants respectfully request that this § 112 written description rejection be withdrawn.

Indefiniteness

Claims 73-78 have also been rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 73-78 have been canceled, rendering this rejection moot.

Rejections under 35 U.S.C. § 102

Claims 1, 6, 7, 10, 73, 77 and 79 have been rejected for being anticipated by Dawson et al., U.S. Patent No. 6,232,074 (“Dawson”). Applicants traverse this anticipation rejection for the reasons discussed below.

The Examiner asserts that Dawson teaches the output array of claim 1. Applicants have amended claim 1 to include the feature that the yeast strains of the output array must be of the same mating type. Dawson does not teach this feature, thus it does not anticipate claim 1 as amended. Dawson teaches a system that will generate both MAT $\alpha$  and MAT $\alpha$  haploid meiotic progeny in its output array. (See Example 1, especially column 16, lines 8-10 of Dawson). To use these output arrays, one of ordinary skill in the art would have to pick colonies that were generated from a single cell in order to generate their output array. Unless this were done, the output array would contain spots with spores of differing mating types, allowing the spores to mate and create diploid strains in the output array. Even if this were done, however, each strain would have to be screened to know its mating type. By selecting the progeny of the sporulating diploid intermediate array to be the same mating type, Applicants generate an output array which is more amenable to robotic manipulation. If the Dawson methods were used to generate output arrays robotically, multiple spores germinated in the same spot on the diploid intermediate array would generate MAT $\alpha$  and MAT $\alpha$  clones in the same spot on the output array. These strains would then mate to create diploid strains in the output array. Since Dawson does not disclose the feature that the yeast strains of the output array must be of the same mating type, it does not anticipate claim 1. Nor does Dawson anticipate any of claims 6, 7, 10, 73, 77 or 79 which depend either directly or indirectly from claim 1, and therefore, take on the features of claim 1.

Applicants: Boone *et al.*  
U.S.S.N. 09/930,593

## CONCLUSION

Applicants submit that the claims as here amended put the application in condition for allowance, and such action is respectfully requested. Should any questions or issues arise concerning the application, the Examiner is invited and encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

  
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